

CLAIMS

1. A postoperative fluid monitoring and alert system comprising:
 - 5 a fluid collection device having a vacuum reservoir configured to be placed in communication with a suction pathway that is at least partially defined by a surgical drain tube;
 - at least one liquid collection sensor configured to obtain data from the suction pathway;
 - 10 a controller connected to the sensor and configured to receive current data from the sensor, save the data to create historical data, compare the current data to the historical data and activate an alarm when predefined trends in the data are detected.
- 15 2. A postoperative fluid management system as defined in Claim 1 wherein: the controller monitors communication between the vacuum reservoir and suction pathway and is configured to activate an alarm when communication is opened between the reservoir and pathway excessively.
- 20 3. A postoperative fluid management system as defined in Claim 2 wherein: the vacuum reservoir is selectively opened to the suction pathway by a valve connected to the controller and the frequency of valve opening is monitored by the controller.
- 25 4. A postoperative fluid management system as defined in Claim 3 wherein the controller activates opening of the valve based on pressure data received from a pressure sensor in fluid communication with the suction pathway.

5. A postoperative fluid management system as defined in Claim 4 wherein:
the vacuum reservoir is a closed tank connected to a compressor
configured to be selectively operated to generate vacuum in the tank.

5 6. A postoperative fluid management system as defined in Claim 4 wherein
the vacuum reservoir is joined to a facility-wide source of suction.

10 7. A postoperative fluid management system as defined in Claim 1 further
comprising a visual display connected to the controller and being
configured to display information regarding liquid collection volume over
predetermined time intervals during a fluid drainage procedure.

15 8. A postoperative fluid management system as defined in Claim 1 wherein
the alarm is an audible alarm.

9. A postoperative fluid management system as defined in Claim 7 wherein
the alarm comprises a visual indication on the visual display.

20 10. A postoperative fluid management system as defined in Claim 1 wherein
the fluid collection device comprises an autotransfusion device.

11. A postoperative fluid management system as defined in Claim 10 wherein
the autotransfusion device is a peri-operative system and the controller is
provided with intra-operative and postoperative modes of operation.

25 12. A postoperative fluid management system as defined in Claim 7 wherein
historical data and current data is displayed on the visual display
graphically indicating the volume of liquid collected in fifteen minute time
intervals.

13. A method of monitoring postoperative fluid drainage procedure comprising:
 - providing fluid collection device having a vacuum reservoir in selective fluid communication with a suction pathway, a liquid collection sensor configured to obtain data from the suction pathway and a controller connected to the sensor;
 - joining a surgical drain tube to the suction pathway;
 - opening the vacuum reservoir to the suction pathway aspirate fluid from a patient's surgical site through the pathway;
 - monitoring the amount of liquid collected with the sensor;
 - transmitting current data from the sensor to the controller and storing the data during the course of the surgical site drainage procedure to create historical data;
 - observing alerts generated by the controller regarding trends identified between the historical and current data.